

# Navy Personnel Research and Development Center

San Diego, CA 92152-6800 TN 90-3 October 1989



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## Interim Plan for the Department of the Navy Quality Support Center

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**INTERIM PLAN FOR THE  
DEPARTMENT OF THE NAVY QUALITY SUPPORT CENTER**

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**Navy Personnel Research and Development Center  
San Diego, California 92152-6800**

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE October 1989		3. REPORT TYPE AND DATE COVERED Technical Note 1988-1989
4. TITLE AND SUBTITLE Interim Plan for the Department of the Navy Quality Support Center			5. FUNDING NUMBERS Program Element 0603739N Work Unit R1885	
6. AUTHOR(S) Harold H. Rosen, Tracy D. Pope				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Navy Personnel Research and Development Center San Diego, California 92152-6800			8. PERFORMING ORGANIZATION REPORT NUMBER NPRDC-TN-90-3	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Navy Executive Steering Group Office of the Secretary of the Navy Washington, DC 20350			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE A	
13. ABSTRACT (Maximum 200 words) <p>In September 1988, the Honorable H. Lawrence Garrett, III, then Under Secretary of the Navy, tasked the Navy Personnel Research and Development Center (NPRDC), San Diego, to produce a conceptual design for a quality support center (QSC) to sustain Total Quality Management (TQM) efforts within the Department of the Navy (DON). NPRDC was also tasked to establish an operating prototype until such time as a design could be approved and funded.</p> <p>Both tasks have been accomplished. A prototype has been in operation for the past year, providing valuable insight into what the various functions of a QSC should be. Based on that knowledge and on interviews conducted with top Navy and Marine Corps leaders, TQM experts at NPRDC have designed a QSC intended to meet the DON's needs over the next 5 years. The process of developing a design plan is depicted in Figure 1, beginning with the 1988 tasking and ending with the publication of this report. This document briefly describes the history of TQM implementation efforts within the DON, the mandate for a QSC within the DON, and the interim plan for its development. The plan defines customers and important linkages, services, and logistics support.</p>				
14. SUBJECT TERMS Total quality management, support centers, productivity improvement, quality-focused management, management training			15. NUMBER OF PAGES 25	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED	

## FOREWORD

On August 17, 1989, the Department of the Navy's Executive Steering Group (ESG) for Total Quality Management (TQM), chaired by the new Under Secretary of the Navy, the Honorable J. Daniel Howard, unanimously endorsed and funded a Quality Support Center (QSC). The decision was the culmination of a year-long process dedicated to defining the role of TQM within the Department of the Navy (DON) and determining the means to support its implementation throughout the commands. The ESG also decided at that meeting that VADM J. M. Boorda, Chief of Naval Personnel (OP-01), would represent the QSC on that steering group.

Just one year prior to that meeting, in late August 1988, the Honorable H. Lawrence Garrett III, then Under Secretary of the Navy, asked the Navy Personnel Research and Development Center to operate a prototype center and to prepare a conceptual design for a permanent facility.

Based on NPRDC's experience in running the prototype and on interviews it conducted with members of the ESG and others, the design plan took shape. The Center will function as a clearinghouse, offer education and consultation, and provide training/development. The primary facility will be located in Washington, DC, to accommodate headquarters and systems command levels. A second facility will be located at NPRDC, San Diego, creating a valuable link to the R&D staff who have been working in the area of TQM implementation within the DON over the past 7 years.

This document is an interim report. A supplement to it that expands on the QSC operations will be prepared later in FY90.

Questions about this document may be directed to Mr. Tracy D. Pope, Head, Acquisition Support Division, 619-553-7696 or AUTOVON 619-553-7696.

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## INTRODUCTION

In September 1988, the Honorable H. Lawrence Garrett III, then Under Secretary of the Navy, tasked the Navy Personnel Research and Development Center (NPRDC), San Diego, to produce a conceptual design for a quality support center (QSC) to sustain Total Quality Management (TQM) efforts within the Department of the Navy (DON). NPRDC was also tasked to establish an operating prototype until such time as a design could be approved and funded.

Both tasks have been accomplished. A prototype has been in operation for the past year, providing valuable insight into what the various functions of a QSC should be. Based on that knowledge and on interviews conducted with top Navy and Marine Corps leaders, TQM experts at NPRDC have designed a QSC intended to meet the DON's needs over the next 5 years. The process of developing a design plan is depicted in Figure 1, beginning with the 1988 tasking and ending with the publication of this report.

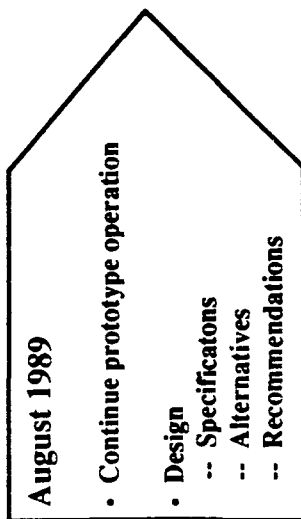
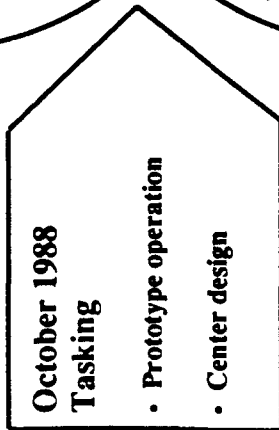
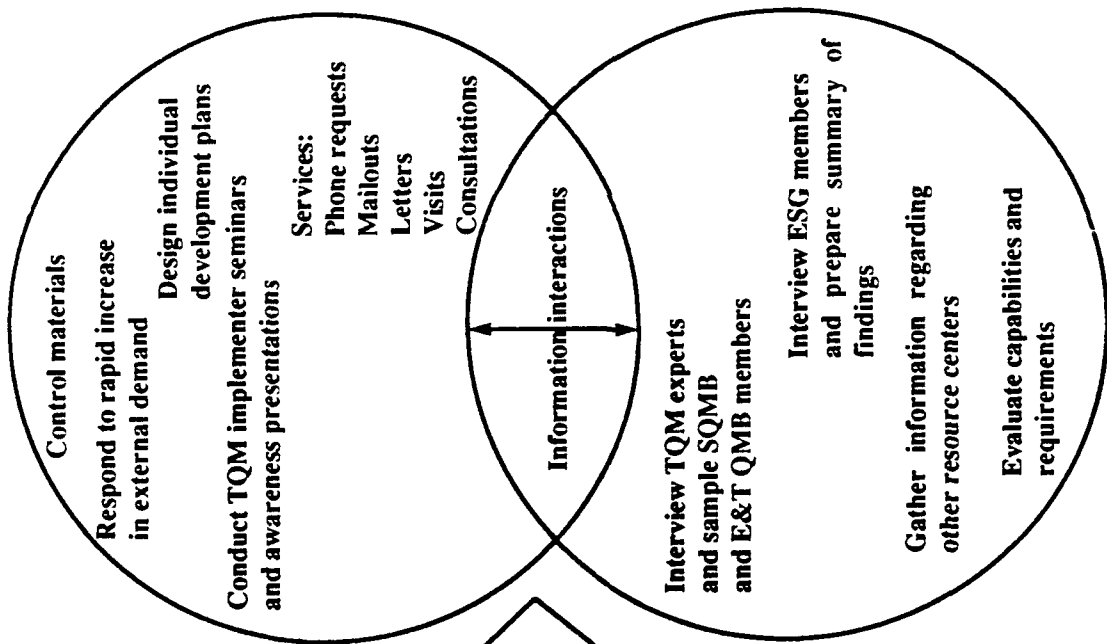
This document briefly describes the history of TQM implementation efforts within the DON, the mandate for a QSC within the DON, and the interim plan for its development. The plan defines customers and important linkages, services, and logistics support.

## HISTORY OF TQM EFFORTS WITHIN THE DON

A quality management philosophy began to take form within the DON under Secretary James H. Webb, Jr., who, together with Commandant of the Marine Corps A. M. Gray and Chief of Naval Operations C. A. H. Trost, published a list of "Productivity Improvement Guiding Principles." The DON leadership began to focus on TQM as an approach to improving productivity in August 1988, following a TQM orientation session for over 50 senior managers within the Department of Defense (DOD). At that time, Under Secretary Garrett directed NPRDC to serve as technical advisor to his office and to proceed with the QSC tasking.

In November 1988, the DON drafted a *Department of the Navy Total Quality Management Implementation Plan* (revised in April, 1989), which describes the importance of TQM to the DON. As the document states, the plan "represents the beginning of a fundamental shift in the DON's approach to leadership and management. It signals the commitment of DON's top leadership to pursue TQM," and describes TQM as a "way of life," as "a new way of doing business which focuses on process improvement" (p. 1).

# Prototype



October 1989 Interim Plan Report

# Design

Figure 1. The tasking process leading up to the interim plan report.

To ensure implementation throughout all of the DON commands, Secretary Garrett formed an Executive Steering Group (ESG). It held its first meeting in February 1989, and has met routinely since then. As the name implies, the ESG represents the top shore-based leadership within the DON. Two other groups were established and are now operating--a Senior Quality Management Board (QMB) and a TQM Education and Training QMB.

During this past year, the QSC prototype operated out of NPRDC, making information and expert assistance available to selected DON organizations. One important function was that of a clearinghouse. QSC staff categorized and evaluated educational materials and distributed them to DON customers as well as to those outside of DON, including the Army, Air Force, the Office of the Secretary of Defense (OSD), and various defense agencies. The staff also helped organizations set up their own reference libraries on TQM. During FY89, NPRDC staff also conducted six 3-day seminars for those responsible for implementing TQM within their organizations. Attendees included representatives from the DON and the other Services as well as from DOD agencies. In addition to these responsibilities, QSC staff prepared individual development plans for people designated by their commands as TQM directors or coordinators.

Valuable lessons were learned, such as how to tailor responses to organizations to meet their specific needs and how to manage requests in a systematic way. The staff professionals also learned what educational efforts are needed to help organizations begin to implement TQM.

From March-May 1989, in preparation for the QSC design plan, NPRDC staff interviewed ESG members to determine customer requirements for a support center, the functions it should perform, and who should have the operating responsibility.

On 17 August, 1989, the DON ESG, chaired by the Under Secretary of the Navy, the Honorable J. Daniel Howard, reviewed the proposed design plan and agreed unanimously to endorse and fund its establishment in FY90. NPRDC was tasked with the responsibility for developing and operating the QSC through its Organizational Systems Department (Code 16). During the course of the ESG's deliberations, it was further decided that VADM Boorda, Chief of Naval Personnel, OP-01, would act as the ESG representative to oversee QSC operations.

### **MANDATE FOR A QSC**

The DON's *Implementation Plan* describes TQM as a "customer-oriented, quality-focused management philosophy for providing the leadership, training and motivation to continuously improve an organizations' process(es)" (p. 1). The philosophy challenges management to define, study, and understand the processes that they manage and to characterize the cause systems within them. Through that understanding, managers will be able to predict process outcomes within narrower ranges and to gauge the effects of improvement efforts. Then, through the application of quantitative methods and extensive data collection, managers will be able to redesign systems over which they have control. These improvements should result in significant savings.



The implications for implementing TQM within the DON are far-reaching and will require changes in organizational culture, plus a re-examination of current management practices. These include, for example, systems of reward and promotion as well as systems of goal-setting, management by objectives, supplier selection, and professional management education and training. Change and continuous improvement will be the order of the day.

A QSC becomes essential to support these changes, to facilitate successful TQM implementation, and to meet specific Navy and Marine Corps requirements. It is needed as well to ensure a consistent understanding of TQM and a uniform approach to its implementation through the use of common training materials.

The demand for information about TQM is increasing steadily as commands attempt to implement TQM. They need access to good information and guidance on what is appropriate for DON and what is not. One of the important functions then is that of a clearinghouse. The members of the ESG who were interviewed supported that function and also indicated a strong need for consulting and training services in support of implementation efforts.

The majority of those interviewed recommended that NPRDC operate the QSC. Senior researchers at the Center have been conducting R&D in the area of TQM for the past 7 years and are continuing to serve as consultants to Navy organizations as part of their research program. The close affiliation of the QSC to NPRDC will facilitate technological transfer of implementation and evaluation methodologies from an R&D setting to an operational one.

The interviewees recommended access to the QSC by those within the Washington, DC area. They also felt that most or all of the support center functions should be centrally funded. A summarization of the interviews with the ESG members is found in the Appendix.

## PLAN

As presented and approved, the QSC will be primarily an information resource facility dedicated to the support of DON's implementation of TQM. It will be co-located in Washington, DC, and San Diego, CA. As illustrated by Figure 2, the QSC will provide three basic services: It will (a) function as a clearinghouse, (b) offer training/development to TQM leaders at selected sites, and (c) provide education and consultation to assist organizations in initial TQM implementation.

A sunset clause provision has been included. This clause establishes a 5-year life span for the QSC. The ESG will annually review the Center's accomplishments and provide

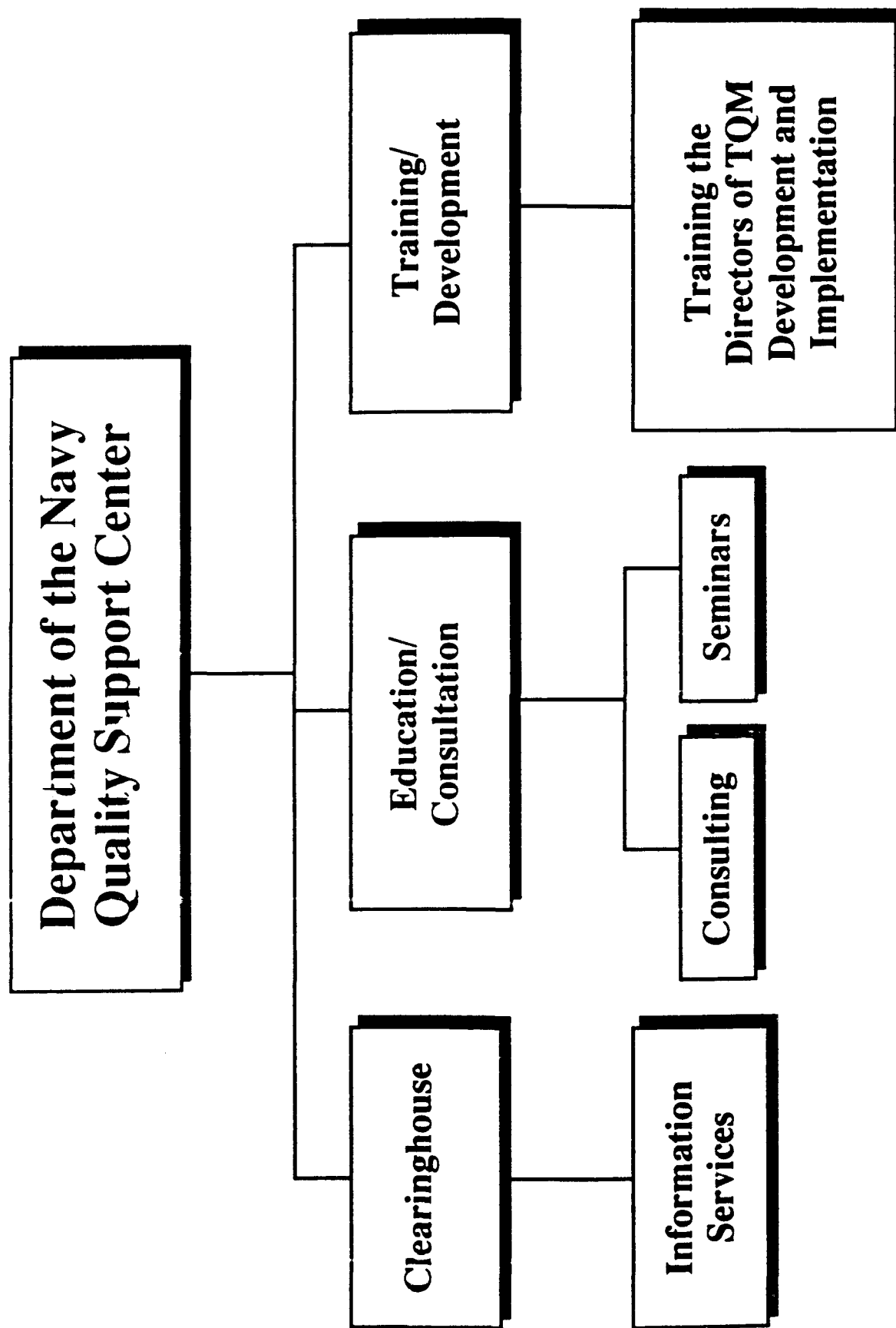


Figure 2. The three QSC functions.

management guidance in response to changing levels of demand and types of services provided. At the end of the 5 years, if the ESG determines that the QSC has continuing value, it has the option to establish the QSC as a separate and independent organization.

## **Customers**

The identification of potential customers of the QSC is a critically important action. Both the drive and direction of QSC-provided services are wholly dependent on customer identification.

Initially, the QSC will focus on maintaining a high level of quality services to customers already identified, specifically, the members of the ESG and their established QMBs. The other customer set will be DON shore commands. The intention is to handle this extremely large group by identifying a point of contact within each top-level/command-level organization for the gathering and dissemination of TQM information. Points of contact will help to reduce duplication of effort and will provide a mechanism for establishing a network across the DON.

During the first quarter of FY90, a team representing the DON customer set will be formed to identify more specifically the customer constituency. The team's findings will provide the QSC with the ability to effectively focus its efforts. In a related move, the Director of the QSC will become a full member of the Education and Training QMB and will attend some meetings of other DON QMBs. This QSC representation will be necessary so that the Center can remain responsive to changing customer requirements.

## **Linkages Between the QSC and Other Organizations**

Organizational links include the ESG; the various DON QMBs, including the Senior QMB and the Education and Training QMB; other DON education and training organizations; the DOD TQM Resource Center; the Defense Systems Management College; the Federal Quality Institute; outside consultants and contractors; educational institutions; and other private sector organizations. One of the most important links will be to other DON organizations involved in developing military and civilian training courses and educational materials. The QSC will coordinate, promote, and disseminate information on available in-house resources.

Of vital importance to a support center is the connection to an R&D organization. NPRDC is the only DOD organization with a program dedicated to R&D on TQM techniques and implementation strategies. For the past 7 years, NPRDC has been involved in working with Navy organizations and guiding them in implementing and evaluating organizational change efforts and in the development of TQM implementation strategies and approaches. This R&D link ensures the incorporation of the latest advancements in TQM into DON organizations. NPRDC's R&D research staff also maintains close contact with universities and the private sector, ensuring that advances put forth by them can be evaluated in terms of benefit to the DON.

## **QSC Functions**

### **Clearinghouse**

The first major function of the QSC is that of a clearinghouse. The volume of material purporting to deal with issues of quality management is increasing rapidly. Through the clearinghouse, technical experts will categorize and evaluate those materials to determine their merit. The objective is for the clearinghouse to be in a position to recommend what materials are essential to the educational effort and to TQM implementation overall. The goal is to establish the means for transferring this knowledge to the appropriate institutions, both inside and outside of the DON, and to assist organizations in establishing their own local support centers.

Figure 3 describes the services to be offered in FY90. The items listed under expanded capability reflect services anticipated for out-years.

The QSC will maintain copies of current TQM policies and regulations for dissemination to customers. In addition, it will provide startup information to all DON organizational points of contact.

Training information will include training sources, both internal and external to DON, schedules of available courses, and information on technical course content.

The QSC will locate a primary reference library in the Washington, DC, area and a second library in San Diego. Both facilities will provide an environment in which customers can review hardcopy information as well as audio/visual materials. This service would offer organizations an opportunity to preview materials prior to purchase.

The QSC will participate in informational networks for DON and DOD organizations, TQM user groups, and private industry. An expanded networking capability could include the sponsoring of conferences, coordination of site visits, publication of a newsletter, and establishment of a case study library.

Finally, consultant information will include names of available TQM speakers, educators, and consultants, both internal and external to DON. In addition, the QSC will help organizations use existing contract vehicles such as the Federal Quality Institute/OPM-sponsored TQM training contract. A strategy for selecting qualified consultants and contractors is a developing goal.

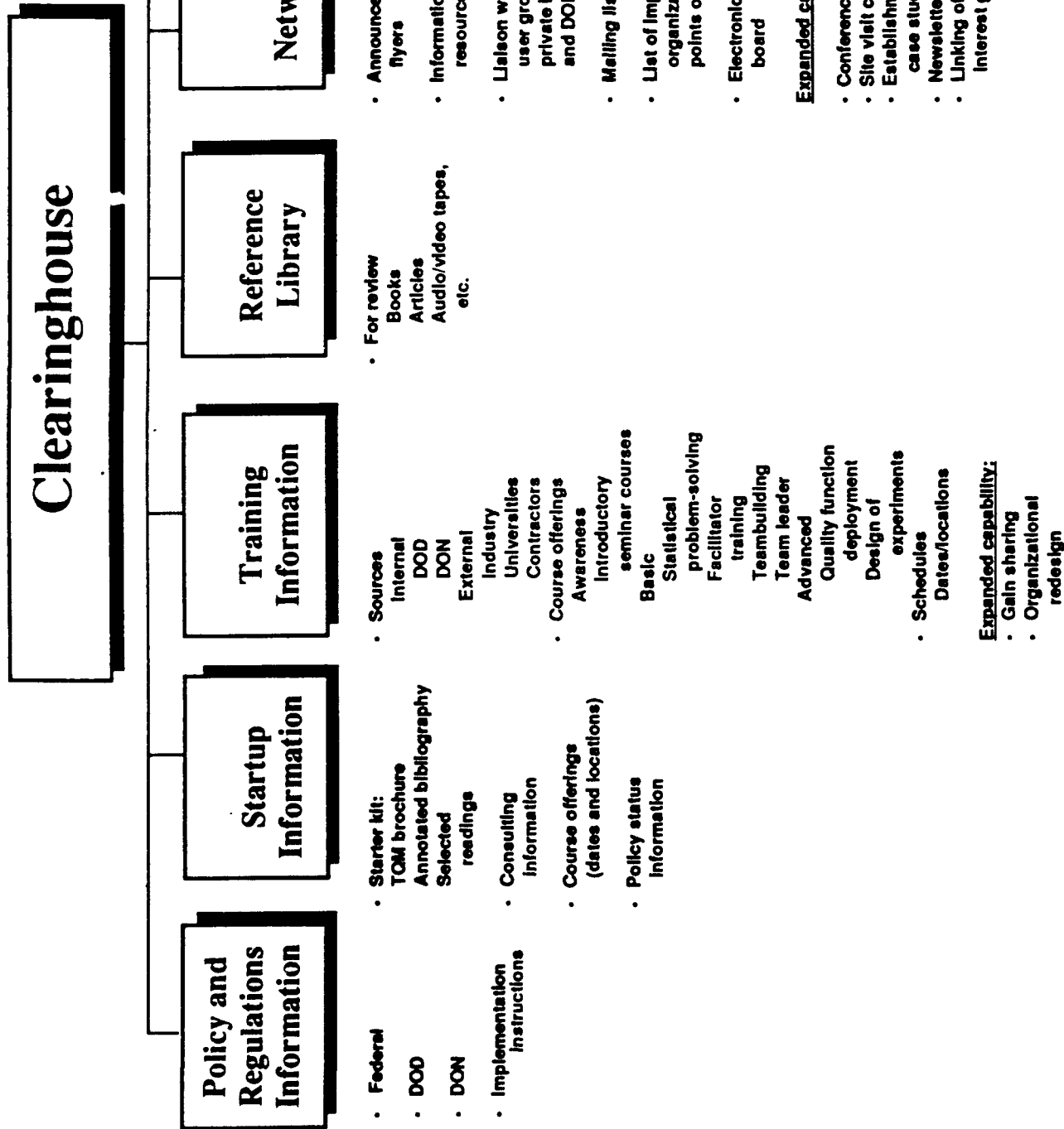


Figure 3. Clearinghouse services proposed for FY90.

## **Education and Consultation**

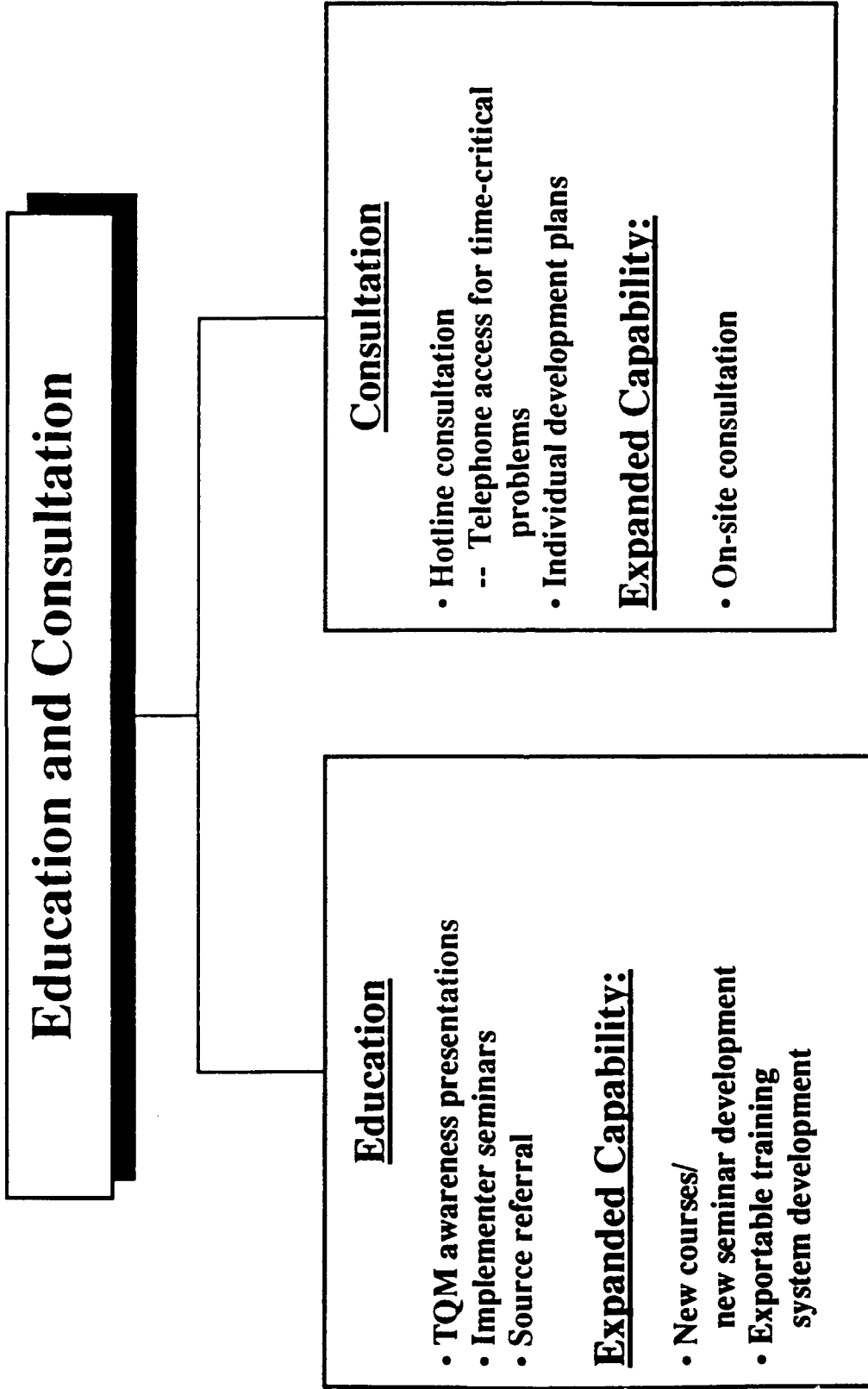
The QSC will provide TQM education and consultation services (Figure 4). The education portion will focus on TQM awareness presentations and seminars on TQM approaches to implementation. The objective is to provide managers and workers with an overview of the basic concepts, history, and tools of TQM. The awareness course is presented in four segments. The first consists of information regarding the background and definition of TQM. A description of W. Edwards Deming's approach to TQM is included in the second segment. The third segment provides an introduction to the basic graphic methods and statistical tools; and process variation and continuous improvement are presented in the final segment.

The implementation seminars are designed to introduce TQM implementation strategies to organizational leaders responsible for TQM. The seminar presents a two-phase approach to implementation and opens with a review of the basic concepts of total quality. The fundamentals of organizational change and the mechanics of the change process are presented and discussed. Implementation strategies address developing a quality philosophy, organizing for TQM, planning for near-term implementation, and educating the work force in TQM.

Depending on emerging requirements, future capabilities could include course offerings focused on process improvement methodologies and "statistical thinking," as well as the development of exportable educational modules.

The consultation services offered by the QSC will include a telephone hotline to handle time-critical problems or requests that require forwarding to TQM technical experts. The Center staff will also assist customer organizations in the preparation of individual development plans for TQM directors or facilitators.

Eventually, on-site consultation to organizations regarding implementation efforts could be offered. These requests would be handled on a reimbursable and as-available basis. The strategy for the consultation effort would be based on a "contingency model" developed by NPRDC. Consulting essentially begins *after* selected members of an organization requesting help have met some basic educational prerequisites. The consultant will then assign specific tasks to be performed by them. Once these tasks have been completed, the consultant will return and work with the organization, evaluating the original task accomplishment and assigning new tasks. The consultant will return on notification that the organization has completed the new tasks. A process for submitting consultation requests will be developed during FY90 to aid in out-year planning for the QSC.



**Figure 4. The education and consultation function.**

## **Training/Development**

The third major component of the QSC is that of training and development (Figure 5). Because of limited resources, the QSC will focus its training/development activities in a few key DON organizations selected by the ESG. A "training-the-trainer" focus, as proposed by some of the ESG members interviewed (see Appendix), could be accomplished more effectively through programs provided by other DON organizations involved in developing military and civilian training courses and educational materials.

QSC staff professionals will work closely with the selected organizations over an extended period, with the objective of providing their TQM directors and staffs with a comprehensive understanding of the theory and methods of TQM. The strategy for training will consist of an alternating series of learning experiences and practical applications in the participating organizations. It is anticipated that the team will also serve as site consultants to the directors on implementation issues.

The responsibility of the QSC is to train and develop the directors, not to lead the organizational implementation efforts. That final responsibility lies exclusively with the directors. The training/development effort is intended to provide the directors with the knowledge and skills required to guide organizational changes.

## **Logistics Support**

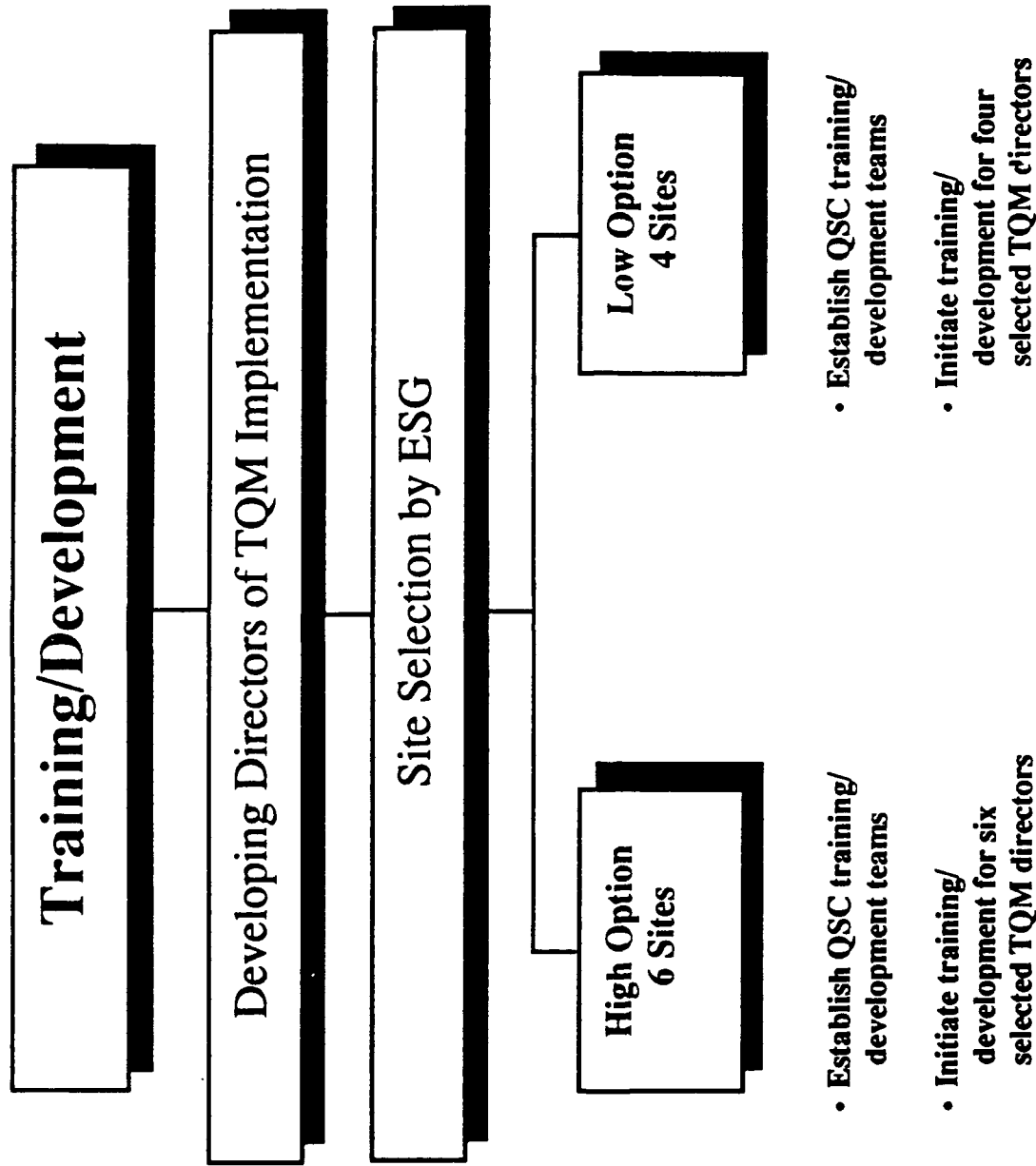
### **Physical and Staffing Requirements**

Figure 6 describes the anticipated logistics support requirements for the QSC. The physical space requirements are described in the first block and should be regarded as minimal. The second block lists recommended staffing for the QSC, to be headed by a GM-15 director. Supporting staff includes secretaries, computer specialists, and TQM experts. The physical space requirements and staff composition being proposed here are only approximations. A different composition may well evolve as the Center begins its work.

### **Location of Functions**

The QSC will be co-located in Washington, DC, and San Diego, CA, to be more responsive to customer requirements nationally. The primary site for computer operations and clearinghouse product development will be San Diego. This arrangement takes advantage of the professional R&D staff at NPRDC and its existing support infrastructure. The San Diego site will be responsible for transferring QSC products to the DC location for dissemination to customers.





**Figure 5. The training/development function.**

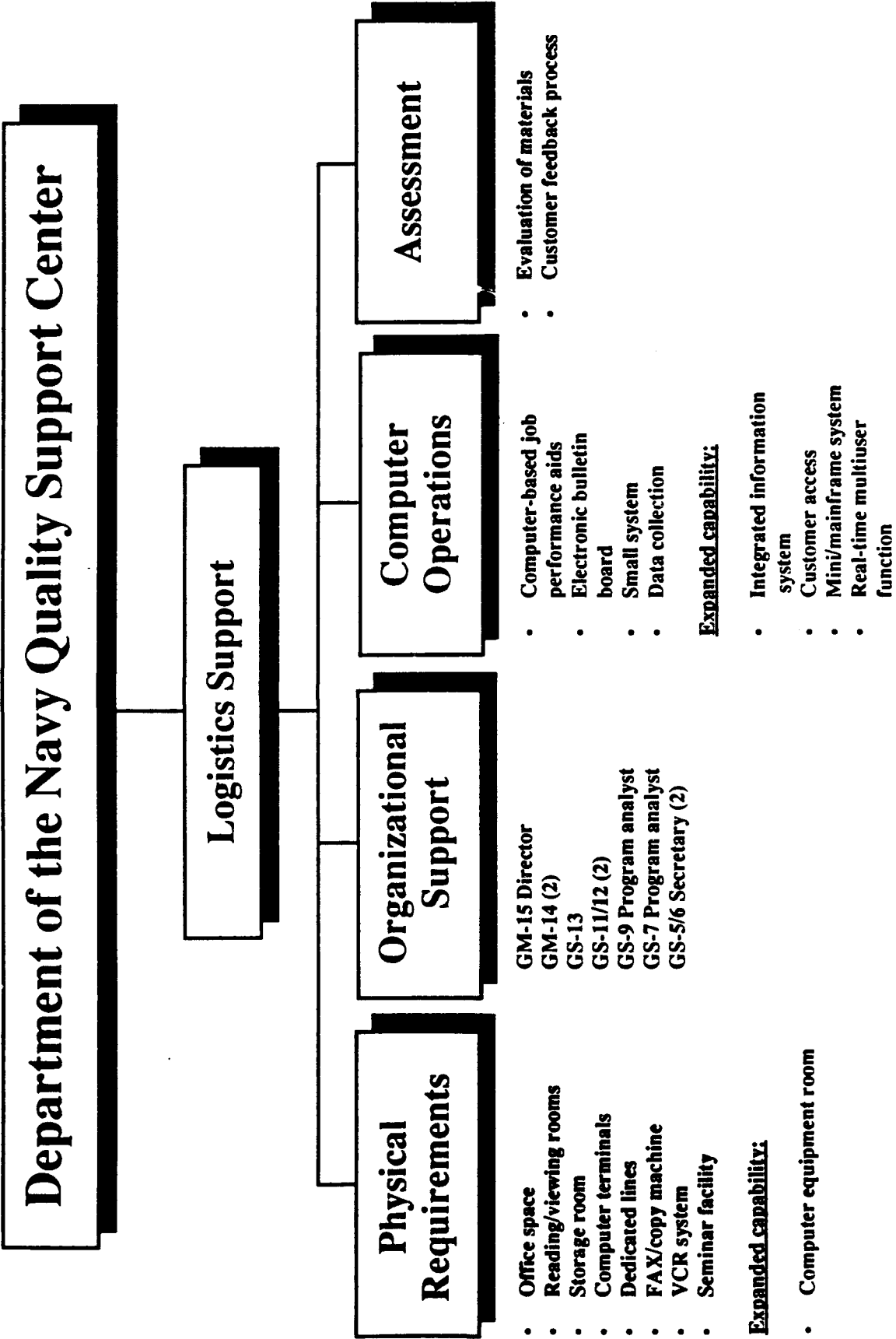


Figure 6. Anticipated support requirements of the QSC.

Certain clearinghouse activities, such as the reference library, will be jointly sited in San Diego and Washington, DC, with the primary facility in Washington. The plan also calls for co-location of activities associated with the education and consultation and training/development functions.

### **Computer Support**

Computer support will include the development of data base systems for the clearinghouse staff, the electronic collection of data, and an electronic bulletin board service accessible across the ARPANET. An expanded capability would include a more fully integrated information system, which would require more sophisticated software and hardware and would provide a real-time multiuser function and direct dial-up customer access. Expansion of this capability is highly desirable, but will require at least 2 years for on-line operation to begin.

### **Assessment**

The last area of logistics is assessment. One part of assessment will be the evaluation, updating, and purging of information within the support center.

The ability to assess, evaluate, and recommend appropriate training materials and training sources, particularly those external to DON, is critical to successful QSC operation. However, the act of recommending the highest quality TQM sources carries with it an obligation to consider questions of fairness and any associated legal implications. Therefore, in an attempt to resolve these issues, a working group whose goal is to develop meaningful procedural guidelines will be established during FY90.

The other component is the assessment of the QSC operations. This activity includes defining the quality characteristics to be measured, determining methods for gathering and analyzing data, conducting the assessment, and using customer feedback to aid in process improvement.

## **SUMMARY**

This report provides the reader with the background and general requirements for a DON QSC, the design for which was recently endorsed by the ESG and the Office of the Secretary of the Navy. A supplement to this report expanding on the QSC operations will be prepared later in FY90.

**APPENDIX**  
**QUALITY SUPPORT CENTER REQUIREMENTS ANALYSIS**

## **APPENDIX**

### **QUALITY SUPPORT CENTER REQUIREMENTS ANALYSIS**

#### **Tasking**

In FY89, the Under Secretary of the Navy tasked the Navy Personnel Research and Development Center (NPRDC) to produce a conceptual design for a model Total Quality Management (TQM) Quality Support Center (QSC) and to establish an operating prototype.

To prepare a design that reflects customer requirements, members of NPRDC's research staff interviewed 14 of the 19 members of the DON Executive Steering Group (ESG). The interviewers asked them about their needs for TQM resources and their opinions of staffing and operation. The following members of the ESG were interviewed:

Hon. Kenneth Bergquist	ASN(M&RA)
Hon. Thomas F. Faught, Jr.	ASN(RE&S)
RADM J. M. Seely	ASN(FM)
ADM L. A. Edney	VCNO
GEN Joseph Went	ACMC
VADM John S. Disher	CNET
VADM S. R. Arthur	DCNO(L)
VADM J. A. Zimble	OP-093
VADM J. M. Boorda	OP-01
RADM Daniel W. McKinnon, Jr.	COMNAVSUPSYSCOM
RADM B.F. Montoya	COMNAVFACENGCOM
RADM Ming Chang	INSGEN
MAJGEN Ray Franklin	CG, MCRADC
Gerard Hoffmann	OASN(S&L)SPECAG

## Interview Protocol

The interviews, which averaged 30-45 minutes, were conducted by NPRDC researchers between 15 March and 5 May 1989, in Washington, DC. The interview was open-ended and addressed the following general questions:

1. Purpose and Content. What types of assistance should a TQM resource center offer?

a. What types of services are needed (e.g., published information, consulting to individual commands, smart buyer assistance to help commands get competent consultants and trainers)?

b. What content areas should be addressed (e.g., statistical methods, organizational change dynamics, leadership approaches)?

c. What types of media are preferred (e.g., articles and books, videotapes, satellite broadcasts, electronic data bases, computer-based instruction, personal assistance over the phone or in person)?

2. Location. Where should a resource center be located? Should it be located in one spot or decentralized, for example, with satellite offices in other major locations?

3. Customers. Who should receive priority attention (e.g., people in headquarters, people in field activities, certain types of organizations known to be in need of major improvement)?

4. Funding. Should the Center receive central funding, charge customers for individual services, or some combination?

5. Staffing. Who should provide these services (e.g., a field activity such as NPRDC, newly created SECNAV staff, out-of-house by a contractor or university)?

All of the interviews were face-to-face. Five of the ESG members were not available for interview during the period indicated. Most interviewees focused on general concerns, with discussions being very broad-ranging in nature. It was unusual for any of the interviewees to address all of the questions.

## Responses

The following sections summarize the views of the ESG members interviewed.

### 1. Purpose and Content

Of the 14 ESG members interviewed, 13 addressed the question of content and purpose of a QSC.

There was general agreement about the need for a DON QSC to support TQM. They envisioned a QSC that would function as a clearinghouse, not as a library. It would provide information regarding the most appropriate *sources* for materials, training, and consultation. Since most of the interviewers intended to build libraries tailored to their own organizational needs, they preferred a clearinghouse with staff who could advise them of materials considered most useful, rather than a library from which they would actually get the materials.

The interviewees considered training to be the major obstacle to implementing TQM. They were concerned about both general training of the work force and training of trainers. Although they thought it crucial to develop their own trainers, a number of them felt that a "training-the-trainer" service could best be provided by a QSC. They supported a centralized training facility for this purpose. Two of the interviewees mentioned the Office of Personnel Management as an additional potential source of training expertise.

They recommended that information be accessible by computer and that computers be used to exchange information. They saw a need for in-house consultants and for a means to evaluate their own implementation efforts. They wanted the QSC to evaluate commercial training programs and consultants. When asked about the media preferred, they most often mentioned videotapes and published matter, and said they were most interested in having access to case studies and annotated bibliographies.

### 2. Location

Ten of the 14 ESG members interviewed addressed the question of location. Six opted for a QSC located at one site. Two others expressed the need for a central site, with one or more satellite offices located elsewhere.

Only five of the interviewees expressed an opinion about actual location, and, of those, four favored the Washington, DC, area, because they perceived that initial efforts would be focused at headquarters or system command levels.

A connection was clearly made between a DON QSC and NPRDC. The interviewees not only looked to NPRDC as an example and provider of information, but over half of those thought that NPRDC should operate the center. They viewed NPRDC as the organization that

will keep abreast of new materials and information through its own research programs, ensuring technological transfer to the QSC and, thus, to DON operational settings.

The interviewers also posed the question about operation of the QSC by an outside agency, such as a university or a private library. The majority of those interviewed felt that DON ownership of the QSC was most important.

### 3. Funding

Nine ESG members addressed the question of funding for the QSC. Five felt that funding should be provided entirely by a mission-funded line item of the DON budget. Three suggested that the QSC be paid for entirely by a system of user fees, and one recommended a combination of line-item funding and user fees.

### 4. Customers

Six of the 14 ESG members interviewed responded to the question regarding the customers or clients of the QSC. One of the interviewees felt the primary customers of the QSC should be representatives of top management. Three thought that the primary customers should be middle managers, and two felt the QSC would most effectively serve the operating forces and field activities.

The response most often heard was that the primary customers should be the assigned TQM coordinators at any level within DON organizations. With regard to the training function associated with the QSC, the primary customers were seen to be the "trainers" within DON organizations. They perceived an urgent need to begin development of a "critical mass" of trained individuals, and saw the QSC as providing that service.

### 5. Staffing

Six ESG members addressed QSC staffing. The responses ranged from recommending that the QSC be staffed with a very small number of highly qualified in-house people able to employ materials and expertise tailored to DON needs, to recommending that the QSC simply "piggyback" on the resources available from some [unnamed] national resource center. The remaining responses were split between those who recommended a majority of the staff be in-house trainers and consultants and those who suggested that the total staff be drawn from NPRDC because of the resident expertise.



## Summary

The interviews with a majority of the DON ESG membership provided valuable help and guidance in the design of the QSC.

To summarize, the interviewees saw the QSC as a clearinghouse for TQM information. Staff experts would evaluate materials and make recommendations on what would be most useful to the DON TQM effort. Information would also be available on computer. The ESG members also defined two other important functions--that of education and consultation and training/development. They were most concerned about training, and felt strongly that first priority of the DON QSC should be training, both general training of the work force and training of the trainers.

The location most often recommended was Washington, DC. The interviewees recommended that NPRDC play a major role in QSC activities, and some suggested that NPRDC be assigned operating responsibility. The perceived importance of the QSC to DON TQM efforts led to a general recommendation that it be line-item funded.